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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/289,067	04/08/1999	DAVID R. IRVIN	1280.00101	8219

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EXAMINER

NGUYEN, THUAN T

ART UNIT PAPER NUMBER

2684

DATE MAILED: 06/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.



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Commissioner of Patents and Trademarks

See Attachments

Office Action Summary

Application No.
09/289,067

Applicant(s)
Irvin et al.

Examiner
Thuan Nguyen

Art Unit
2684



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-30 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-16, and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grube et al. (U.S. Patent No. 5,666,661) in view of De Brito (WO 99/33199).

Regarding claim 1, Grube et al (or "Grube" hereinafter) teach a method of generating a control signal, i.e., control information in the control channel for controlling or generating communication request between the mobile terminal unit and the system controller (Fig. 1/item 120, and col. 1/lines 23-32, and col. 2/lines 44-56), comprising the steps of: determining the location of a first mobile radio terminal; determining the location of a second mobile radio

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terminal; comparing the locations of the terminals; and generating a control signal based upon said comparison, i.e., the initiating (mobile) unit and the target (mobile) unit are both identified by the resource controller based on their own and separate locations, and the control signal in the form of a message conveying on the control channel is generated based on the comparison between two locations of the mobile units (col. 2/lines 44-67).

Grube does not further mention the step of "wherein the second mobile radio terminal has the primary function of being a key to permit the generation of the control signal" as amended; however, in the same filed of endeavor, De Brito teaches a technique of communication for a group of mobile terminals, wherein the original mobile terminal can select one of mobile communication units within its range based on geographical locations of mobile communication units to have a call connection, or in other words, sending a control request signal for establishing the call connection between the first terminal, in a generalized procedure, the first terminal can be any one the other terminals, e.g., the second mobile terminal as in this scenario, and to one of surrounding terminals (see De Brito, Figs. 1 and 2A, and page 7, line 12 to page 9, line 10 for more details on this issue and for the request signal of concern). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Grube's system with De Brito's teaching technique of having the call communication established between the first and/or second mobile terminal in sending or transmitting a key to permit the generation of the control signal to other terminals in order to perform the call connection as suggested by De Brito as preferred.

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As for claim 2, Grube further teaches “wherein the step of generating a control signal based upon said comparison comprises the step of generating a control signal if the locations of the first and second mobile radio terminals are within a specified distance of one another”, i.e., the two locations are compared to each other, for example, on their close proximity to each other, based on the predetermined distance or a specified distance of one to another (see col. 2/lines 58-67).

As for claim 3, Grube discloses “wherein the step of generating a control signal based upon said comparison comprises the step of generating a control signal if the locations of the first and second mobile radio terminals are separated by at least a specified distance”, i.e., the two locations are compared to each other, for example, on their close proximity to each other, based on the predetermined distance or a specified distance of one to another (see col. 2/lines 58-67).

Regarding claim 4, in view of claim 1 above, De Brito discloses the step of “wherein the first mobile radio terminal comprises a mobile communication device and the second mobile radio terminal comprises a key permitting operation of the mobile communication device only when the key is within a specified distance from the mobile communication device, and wherein the step of generating a control signal based upon said comparison comprises the step of generating a mobile communication device activation signal if the locations of the mobile communication device and the key are within the specified distance” because De Brito teaches a technique of communication for a group of mobile terminals, wherein the original mobile terminal can select one of mobile communication units within its range based on geographical locations of mobile communication

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units to have a call connection, or in other words, sending a control request signal for establishing the call connection between the first terminal, in a generalized procedure, the first terminal can be any one the other terminals, e.g., the second mobile terminal as in this scenario, and to one of surrounding terminals within a specified distance from the mobile communication device (see De Brito, Figs. 1 and 2A, and page 7, line 12 to page 9, line 10 for more details on this issue and for the request signal of concern).

Regarding claims 5-6, Grube further shows “wherein the step of generating a control signal based upon said comparison comprises the step of generating a control signal if the first mobile radio terminal is at a first specified location and the second mobile radio terminal is at a second specified location” and “wherein the first specified location is spatially separated from the second specified location”, i.e., the two locations are compared to each other, for example, on their close proximity to each other, based on the predetermined distance or a specified distance of one to another (see col. 2/lines 58-67).

As for claim 7, Grube further suggests “wherein the first and second mobile radio terminals operate in a wireless communications system including a base station and a location server communicating therewith, and wherein the comparing and generating steps are performed at the location server”, i.e., base stations 104 & 105 are handling the operation of wireless communication of mobile units 102 & 103 based on the comparison and generating steps are performed by a location server (understood) within the communication resource controller 101 (Fig. 1 and col. 2/lines 31-40).

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As for claim 8, Grube teaches "wherein the comparing and generating steps are performed at one of the first and second mobile radio terminals", i.e., the comparison procedure is done at one of the mobile unit (Fig. 3/steps 300 & 301 & 302).

As for claim 9, Grube further reveals "wherein the locations of the first and second mobile radio terminals are determined by either a global or a cellular positioning system, or a combination thereof" (col. 2/lines 31-43).

Regarding claims 10 and 11, in further view of claim 1 above, Grube inherently suggests the steps of "wherein the comparing step further comprises the step of comparing a current time with a preselect time" and "wherein the generating step comprises the step of generating a control signal if the first mobile radio terminal is at a first specified location, the second radio terminal is at a second specified location and the current time matches the preselect time" because two units are mobile and they are constantly moving; thus the distance between them is variable. Therefore, the procedure as illustrated in Fig. 3 can be consistently repeated in terms of the current time and then the preselect time, for example, within 30 minutes or an hour for conversation, for automatically checking the favorable distance between them (col. 3/line 53 to col. 4/line 9).

Regarding claim 12, Grube suggests "a method of generating a control signal comprising the steps of: determining locations of N mobile radio terminals, wherein $N \geq 2$; comparing the locations of the N mobile terminals with M different specified locations, wherein $M \leq N$; and generating, in response to said comparison, a control signal if at least one of the N mobile radio terminals is located at each of the M different specified locations", i.e., N mobile terminals ≥ 2

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and M different locations are addressed by Grube because a group call (understood that a group call is formed by two or more persons) is mentioned (see the Examiner's discussion in claim 1 above and col. 1/lines 25-32).

As for claims 13-14, Grube suggests "wherein the step of determining locations of N mobile radio terminals comprises the step of continuously monitoring, via a location server, the locations of the N mobile radio terminals" and "wherein the N mobile radio terminals operate in a wireless communication system including a base station and a location server communicating therewith, and wherein the comparing and generating steps are performed at the location server", i.e., base stations 104 & 105 are handling the operation of wireless communication of mobile units 102 & 103 based on the comparison and generating steps are performed by a location server (understood) within the communication resource controller 101 (Fig. 1 and col. 2/lines 31-40).

Regarding claims 15-16, these claims for "a method of generating a control signal comprising the steps of: determining locations of N mobile radio terminals, wherein $N \geq 2$; comparing the locations of the N mobile radio terminals with N specified locations assigned to each of the N mobile radio terminals; and generating, in response to said comparison, a control signal if each of the N mobile radio terminals is located at its assigned location" and "wherein the N specified locations include N different specified locations" are rejected for the reasons given in the scope of claims 1, 8 and 12 as already disclosed in details above.

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Regarding claims 27-30, these claims for “a method of generating a control signal comprising the steps of: monitoring, at a location server, locations of N mobile radio terminals, wherein $N \geq 2$, said location server remote from the N mobile radio terminals; comparing, at the location server, the monitored locations of the N mobile radio terminals; and generating, at the location server, a control signal based upon said comparison” are rejected for the reasons given in the scope of claims 1, 8, and 12-16 as already disclosed in details above.

4. Claims 17-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grube et al. (U.S. Patent No. 5,666,661) in view of Lachance (U.S. Patent No. 6,246,882) and De Brito (WO 99/33199).

Regarding claims 17 and 23, in the described “a method of generating a control signal comprising the steps of: receiving, at a location server, an initiation signal from a first mobile radio terminal, said initiation signal including the location of the first mobile radio terminal; transmitting, by the location server, a location query to a second mobile radio terminal; reporting, by the second mobile radio terminal, the location of the second mobile radio terminal in response to the location query; comparing, at the location server, the locations of the first and second mobile radio terminals; and generating a control signal based upon said comparison” and further in the step of “transmitting, by the location server, a location query to the first mobile radio terminal and a second mobile radio terminal”, Grube does not mention to include “a location query” transmitted by a location server as claimed; however, such a technique of using “a location query” from a location server in requesting the location information from the mobile units is

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known in the art. In fact, Lachance discloses an exact same technique, in which "a location query" can be sent from a location node or location database to mobile users via a MSC and a base station (Lachance, col. 5/lines 39-52) and the step of determining the comparison the locations at the location server is followed (see col. 6/line 51 to col. 7/line 13). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Grube's technique of handling communication between mobile units in close proximity with Lachance's technique of using a location query transmitted from a location server in order to obtain the location information or location updates from the mobile users as much often as possible as disclosed by Lachance.

Grube and Lachance do not further mention the step of "wherein either the first mobile radio terminal or the second mobile radio terminal has the primary function of being a key to permit the generation of the control signal" as amended; however, in the same filed of endeavor, De Brito teaches a technique of communication for a group of mobile terminals, wherein the original mobile terminal can select one of mobile communication units within its range based on geographical locations of mobile communication units to have a call connection, or in other words, sending a control request signal for establishing the call connection between the first terminal, in a generalized procedure, the first terminal can be any one the other terminals, e.g., the second mobile terminal as in this scenario, and to one of surrounding terminals (see De Brito, Figs. 1 and 2A, and page 7, line 12 to page 9, line 10 for more details on this issue and for the request signal of concern). Therefore, it would have been obvious to one of ordinary sill in the art

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at the time the invention was made to modify Grube and Lachance's system with De Brito's teaching technique of having the call communication established between the first and/or second mobile terminal in sending or transmitting a key to permit the generation of the control signal to other terminals in order to perform the call connection as suggested by De Brito as preferred.

Regarding claims 18 and 24, these claims for "the step of generating a control signal based upon said comparison comprises the step of transmitting, by the location server, a control signal activating the non-key mobile radio terminal for use if the locations of the first and second mobile radio terminals are either with or separated by, a specified distance" are disclosed by Grube, i.e., the two locations are compared to each other, for example, on their close proximity to each other, based on the predetermined distance or a specified distance of one to another (see col. 2/lines 58-67).

Regarding claims 19 and 25, De Brito discloses the step of "wherein the first mobile radio terminal comprises a mobile communication device, and wherein the second mobile radio terminal comprises a key permitting operation of the mobile communication device only when the locations of the mobile communication device and the key are within the specified distance" because De Brito teaches a technique of communication for a group of mobile terminals, wherein the original mobile terminal can select one of mobile communication units within its range based on geographical locations of mobile communication units to have a call connection, or in other words, sending a control request signal for establishing the call connection between the first terminal, in a generalized procedure, the first terminal can be any one the other terminals, e.g., the

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second mobile terminal as in this scenario, and to one of surrounding terminals within a specified distance from the mobile communication device (see De Brito, Figs. 1 and 2A, and page 7, line 12 to page 9, line 10 for more details on this issue and for the request signal of concern).

As for claims 20 and 26, in further view of claim 17 above, these claims for “the step of generating a control signal based upon said comparison comprises the step of generating a control signal if the first mobile radio terminal is at a first specified location and the second mobile radio terminal is at a second specified location spatially separated from the first specified location” are taught by Grube, i.e., the two locations are compared to each other, for example, on their close proximity to each other, based on the predetermined distance or a specified distance of one to another (see col. 2/lines 58-67).

With respect to claims 21-22, in further view of claim 17 above, the steps of “wherein the comparing step further comprises the step of comparing at the location server, a current time with a preselect time” and “wherein the generating step comprises the step of generating a control signal if the first mobile radio terminal is at a first specified location, the second mobile terminal is at a second specified location and the current time matches the preselect time” are suggested by Grube because two units are mobile and they are constantly moving; thus the distance between them is variable. Therefore, the procedure as illustrated in Fig. 3 can be consistently repeated in terms of the current time and then the preselect time, for example, within 30 minutes or an hour for conversation, for automatically checking the favorable distance between them (col. 3/line 53 to col. 4/line 9).

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Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

6. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for Technology Center 2600 only)


*Hand-delivered responses should be brought to Crystal Park II,
2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).*

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony Thuan Nguyen whose telephone number is (703) 308-5860. The examiner can normally be reached on Monday-Friday from 9:00 AM to 6:00 PM, with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Hunter, can be reached at (703) 308-6732.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Technology Center 2600 Customer Service Office** whose telephone number is (703) 306-0377.


DANIEL HUNTER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

Tony T. Nguyen
Art Unit 2684
May 28, 2002